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ABSTRACT

This study applied feminist organizational theory to explore the effects of gender structure on perceptions of organizational culture and climate. The study used data from a 1994 survey of permanent, noninstructional staff at a major midwestern university (n=4,800). The research sought to determine: (1) whether gender-dominated organizational sectors exist in the noninstructional work setting of a university; (2) how employee gender relates to perceptions of organizational work culture and climate; (3) how gender dominance in job type relates to perceptions of organizational work culture; and (4) how employee gender, gender dominance in work sector, and perceptions of organizational culture relate to perceptions of work climate. The conceptual framework for the study included feminist views of organizational theory, literature on organizational culture and climate, and issues of gender in higher education. The data revealed distinctive gender distributions among job types, supporting the feminist description of a gendered organization, with women segregated into particular job types and academic disciplines. It also appeared that employees in job types dominated by women tended to view their work culture as one which emphasized relationships, shared values, and group loyalty, rather than as an entrepreneurial-style adhocracy. Most respondents rated their work environment favorably. (Contains 25 references.) (CH)

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# The Influence of Gender Structures on Perceptions of Workplace Culture and Climate

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**Dolores Vura  
Editor  
AIR Forum Publications**

## **The Influence of Gender Structures on Perceptions of Workplace Culture and Climate**

Organizational theory has traditionally described organizations as gender-neutral, but for the past decade feminist scholars have questioned the validity of those depictions. They argue that “gendered organizations” reinforce traditional notions of male-dominated hierarchies, placing women primarily in roles of low status and low prestige. This study examines survey data from permanent, noninstructional staff at a major Midwestern university and considers gender differences in employee perceptions of their workplace environment, exploring the gendered structure of job types and organizational sectors as contexts that may influence views on institutional culture and climate.

## ***Introduction***

Although organizational theory has traditionally depicted organizations as gender-neutral, feminist scholars (e.g., Acker, 1996; Reiger, 1993; Tjildens, 1994) have questioned the validity of those descriptions. They argue that “gendered” structures within organizations reinforce traditional male-dominated hierarchies, placing women primarily in roles of lower status and lower prestige. Addressing higher education, Hensel (1991) argued that gender differences ought to be acknowledged in the academy so that policy supporting a more equitable environment might be developed and implemented.

Employee perceptions of their work culture and climate influence employee motivation (Peterson & White, 1992). Increased understanding of the factors that influence those perceptions may lead to changes in the work environment that result in increased employee satisfaction and productivity. As gender structures may be influential on employee perceptions of work culture and climate, exploration of that influence is important.

While higher education has devoted a great deal of attention to issues of gender equity among faculty and top-level administrators, little has been paid to other workers in colleges and universities. More than a decade ago, Austin and Gamson (1984) acknowledged that research in higher education has generally neglected the study of noninstructional staff, even while describing these employees as “essential to the smooth daily operation of the workplace” (p. 87).

Using survey data from permanent, noninstructional staff at a major Midwestern university, our purpose in this study is to examine gender differences in employee perceptions of their work environment, exploring the gender structures as contexts that may influence views on workplace culture and climate.

## ***Literature Review***

To develop a conceptual framework for this study, we have drawn from feminist views of organizational theory, literature on organizational culture and climate, and perspectives on issues of gender in higher education.

### **Gender and Organizational Theory**

Organizations as described by organizational theorists have typically been conveyed as “genderless” or “gender-neutral” (e.g., Birnbaum, 1988; Bolman and Deal, 1991; Scott, 1995).

Feminist scholars have challenged those images, however, arguing that gender neutrality in organizations is a “facade” (Acker, 1996; Reiger, 1993). Describing organizations as gendered, Acker (1996) explained that they exhibit “patterned differences, usually involv[ing] the subordination of women, either concretely or symbolically” (p. 463).

Tijdens (1994) described three forms of “collectively gendered” organizational structures: industrial, occupational, and hierarchical. Industrial segregation appears in the uneven gender distribution of workers in a particular industry, compared to the gender distribution in the broader workforce. Occupational segregation refers to unequal gender distribution in a particular job type. Hierarchical segregation is the uneven vertical distribution of men and women in multiple job levels, where men tend to hold positions of higher pay and prestige and are likely to supervise both men and women. In contrast, women tend to supervise smaller, less prestigious departments dominated by female employees. Tijdens found that these three structural forms were intertwined, “mutually interlocked,” and urged study of the relationship between gender structures and power and authority in organizations.

While its importance has overlooked in the past, feminist organizational scholars contend that gender is an important factor in organizational studies.

### Gender Issues in Higher Education

Tijdens (1994) has provided a useful frame for viewing studies of gender in higher education. The literature that follows has been organized according to its portrayal of industrial, occupational, or hierarchical segregation.<sup>1</sup>

#### Industrial Segregation

According to Tijdens, industrial segregation describes the uneven distribution of men and women among industries, compared to the broader population of workers. An industrial view of higher education, however, does not convey the complexity of the mosaic. Women may make up a substantial proportion of the industry-wide workforce, but be unevenly distributed among various domains defined by institutional type. For instance, Moore reported in 1984 that women administrators were more commonly employed in liberal arts colleges, rather than in other domains of higher education. Anderson (1993) encouraged women aspiring to administrative careers to seek work in California’s community colleges, suggesting that the more prestigious

university systems in the state provided fewer opportunities for women's career advancement. Warner and DeFleur (1993) found that women presidents were more likely to lead community colleges than prestigious land-grant universities.

Thus, higher education may not exhibit industrial segregation in a strict sense, but may exhibit gender segregation by institutional type, particularly for workers in particular occupations.

### Occupational Segregation

Describing occupational segregation, Acker wrote that "many still perceive women as suited for certain work and men as suited for other work" (1996, p. 465). Although higher education was not the specific object of Acker's words, occupational segregation is clearly evident in colleges and universities.

In a 1984 monograph on women in higher education administration, Moore described women as "pocketed" in certain positions (registrars, librarians, student affairs, clerical) and institutional divisions (student affairs). Warner and DeFleur (1993) found nearly a decade later that women administrators at the level of dean or higher were more likely to hold nonacademic than academic leadership positions. Between 1983 and 1993 women administrators became more visible on college and university campus, but still occupied only about 40% of administrative positions (Carter & Wilson, 1996).

In 1993, women held one-third of the nation's full-time faculty positions (Carter & Wilson, 1996). Within the faculty, traditional academic disciplines appear to support rather than diminish gender structures. Smart (1991) acknowledged the gendered nature of academic disciplines in his 1991 study of equity in academic rank and salary, using the percentage of men in a discipline to represent "male domination of the field" (p. 516). Smart reported "that the negative effect of gender [on rank and salary] is a function of women academics' membership in academic disciplines that have a higher proportion of females" (p. 520 - 521). Faculty women cluster in "traditionally 'feminine' disciplines" such as English, education, foreign language, nursing, home economics, fine arts, social work, and library archival sciences, according to Tack and Patitu (1992, p. 33).

Occupational segregation is evident among administrative and faculty , but these studies have not addressed positions held by other noninstructional employees, such as health, trades, office, and technical workers.

### Hierarchical Segregation

Hierarchical segregation is the uneven vertical distribution of men and women in multiple job levels, where men tend to hold positions of higher pay and prestige and are likely to supervise both men and women. Tijdens' description of the various gender structures as intertwined appears to be applicable in higher education, where it is difficult to separate hierarchical segregation from industrial and occupational gender structures.

Warner and DeFleur (1993) reported that women were more likely to hold nonacademic than academic leadership positions; these nonacademic positions were typically associated with lower prestige and less opportunity for advancement than seemingly equivalent academic positions. A 1995 report from the American Council on Education (ACE) presented statistics on women CEOs in higher education, finding that women held only 16% of college and university presidencies, "and most -- 71 percent -- led institutions with enrollments of 3,000 or fewer" ("New Report," 1995). In her discussion of factors that impede women's administrative advancement in higher education, LeBlanc (1993) noted that women and people of color were more often hired for less economically attractive positions. They also encountered the influence of perceptual differences, where certain positions were perceived as women's jobs or and minorities' jobs.

The work of LeBlanc and others appear to support Tijdens' conception of hierarchical segregation, affirming the uneven distribution of men and women in administrative leadership in higher education. Thus, men are more likely to hold positions of prestige and status than are women.

In his study of faculty and gender, Smart (1991) found that men held higher academic rank and received higher salaries than women, and regression analyses confirmed that that gender accounted for a majority of the variance in both variables. Carter and Wilson noted in 1996 that men are more than twice as likely to be full professors than are women. Tack and Patitu effectively summarized the status of women, reporting discouraging evidence of industrial, occupational, and hierarchical segregation: "Today, women typically represent a small percentage

of the faculty cohort, hold the lower professorial ranks, work in part-time rather than full-time positions, represent disciplines typically considered reserved for females, work in less prestigious institutions, and are not tenured” (1992, p. 33).

The literature on women in higher education appears to offer evidence of gender structures, particularly among administrative and faculty positions. These studies provide an interesting but incomplete look at gender issues in higher education, offering little insight into the gender structures that influence the work environment of noninstructional employees.

### Culture and Climate in Higher Education

Focusing on “the deeply embedded patterns of organizational behavior and the shared values, assumptions, beliefs, or ideologies that members have about their organization or its work” (Peterson and Spencer, 1991, p. 142), organizational culture is often described as “the glue that holds the organization together.” Schein (1996) emphasized the fundamental nature of culture as it exists as a set of “basic assumptions and beliefs that are shared by members of an organization, that operate unconsciously, and that define . . . an organization’s view of itself and its environment” (p. 423). Organizational culture, then, is deeply established, enduring, and slow to change, reflecting the long-term values of its members. In contrast, climate includes “the current common patterns of important dimensions of organizational life or its members’ perceptions of and attitudes toward those dimensions” (Peterson & Spencer, 1991, p. 142). Climate is more locally, individually perceived, while culture permeates the entire organization (Cameron & Ettington, 1988, p. 362).

Cameron and Ettington described four cultural archetypes (1988). *Hierarchy* is perhaps the most commonly understood organizational culture, governed by formality and uniformity in procedures, rules, and status structures. *Market* culture thrives on competition, where winning -- achievement of measurable goals -- is the key to success. *Clan* culture is similar in character to a family, where inclusion and participation of the members, shared values, and bonds of loyalty and tradition are particularly important. *Adhocracy* culture is “loosely coupled,” encouraging innovation, creativity, and entrepreneurship. “Cutting edge” approaches and individual initiative are highly valued in adhocracies (p. 373). In their study of culture in 334 American colleges and universities, Cameron and Ettington found that employees described their institutions as having

characteristics consistent with more than one cultural type, although in some cases, a particular cultural type was considered dominant.

Also writing about organizational culture in higher education, Tierney (1988) identified a set of “essential concepts” to be considered in an ethnographic study of organizational culture, including environment, mission, socialization, information, strategy, and leadership. Tierney joins Cameron and Ettington (1988) and Peterson and Spencer (1991) in his omission of gender in studies of culture in higher education.

Feminist organizational scholars argue that gender does play an important role in the workings of organizations. Nexø-Jensen contended that gender neutrality is an unachieved ideal, as organizational theory is dominated by male versions of reality and male values, described as “rational, logical, aggressive, exploitative, strategic, and competitive” (1994, p. 41). Hierarchical, impersonal, and rational organizations are “masculinist,” rather than being gender neutral (Blackmore, 1993; Reiger, 1993). Those values considered masculine by Nexø-Jensen, Blackmore, and Reiger are consistent with characteristics of hierarchy and market cultures described by Cameron and Ettington (1988).

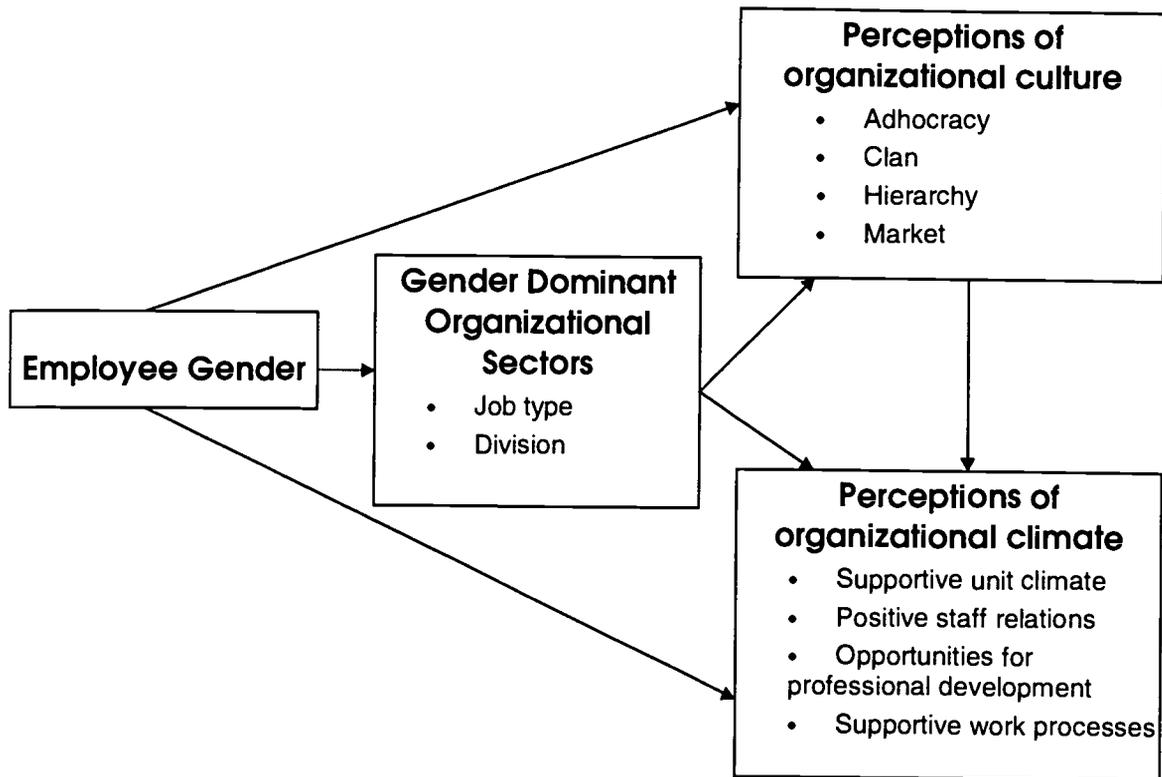
According to Blackmore, gender is an important element of culture: “The values, ideologies and structures associated with dominant theories of administration and associated cultural practices favour certain images of masculinity at any one time” (1993, p. 29). Nexø-Jensen (1994) observed that both organizational gender and organizational culture are socially constructed concepts that influence structures and processes within organizations (pp. 25-26).

This study attempts to explore the role of gender as an element of institutional culture and climate among noninstructional employees in a major research university. Thus, it responds both to feminist organizational scholars, who believe that the study of culture and climate are not complete without consideration of gender, and to higher education scholars, whose understanding of institutional culture may be broadened to include the study of noninstructional employees.

### ***Conceptual Framework***

The conceptual model for this study appears in figure 1. Major components of the model are employee gender and gender dominant work sectors, and elements of organizational culture and climate.

**Figure 1. Conceptual Framework.**



### Employee gender

Employee gender is the first component of the model, as the distribution of employees by gender provides the fundamental basis for this exploration.

### Organizational work sectors and gender

Two forms of organizational work sectors are examined in this study, job type and division. Job types represent occupations (and clusters of occupations) found in various areas of the university, and might be thought of as horizontal slices of the university's noninstructional staff. Examples include office, professional and administrative, and trades occupations.

Divisions are vertical segments of the institution, including noninstructional staff in various job types who report vertically to a vice president. Student affairs, development, and business and finance are examples of divisions.

Based on Tijdens' conceptualization of gender structures, gender dominance refers to the uneven representation of male or female employees in a work sector. A gender dominant organizational sector is a job type or division wherein women or men employees make up more than half of the employees in that job type or division.

### Organizational culture

Organizational culture is "the deeply embedded patterns of organizational behavior and their shared values, assumptions, beliefs or ideologies that members have about their organization or its work" (Peterson & White, 1992, p. 181). The model includes four archetypal models, taken from the work of Cameron and Ettington (1988). Organizational culture itself cannot be measured, and is thus determined only by reported perceptions. The conceptual model depicts these perceptions of organizational culture as influenced by Employee Gender, and by gender-dominant organizational sectors, namely job type and division.

### Organizational climate

Climate is more immediate than culture and comprises "the current common patterns of important dimensions of organizational life" (Peterson & White, 1992, p. 181). Organizational climate, like culture, can be measured indirectly, using employee perceptions. The model depicts perceptions of four aspects of the work environment: the general climate of the workplace, positive relationships with coworkers, perceived opportunities for professional development, and a climate supportive of improving work processes. The conceptual model portrays these perceptions of climate as influenced by employee and organizational sector gender, but also by perceptions of culture.

### Research questions

Four research questions, drawn from relationships depicted in the conceptual framework, guided this research.

1. Do gender-dominated organizational sectors exist in the noninstructional work setting in a university?
2. How does employee gender relate to perceptions of organizational work culture and climate?
3. How does gender dominance in the organizational sector (job type and division) relate to perceptions of organizational work culture and climate?

4. How do employee gender, gender dominance in the organizational work sector (job type and division), and perceptions of organizational culture influence or relate to perceptions of work climate?

### ***Research Methodology***

A survey of permanent, noninstructional staff employed at a major midwestern university provided data for this study of gender influences on perceptions of work culture and climate. The survey and its development, variables in the study, and subsequent analysis strategies follow.

#### **Survey setting & response**

Following implementation of a quality improvement program at a major Midwestern university, a survey instrument was developed to evaluate the institutionalization of principals emphasized by this program. The survey was distributed through campus mail to all permanent, noninstructional staff<sup>2</sup> in 1994, and supervisors were directed to allow employees to complete the questionnaire during work time. More than 4,800 usable questionnaires were returned, for a response rate of 47.3%.

Questionnaire items were focused not only on issues directly related to improvement of work processes and outcomes, but also on elements of culture and climate. The organizational literature on quality improvement, culture, and climate were the basis for survey items, and the instrument was modified to incorporate focus group responses and pilot test results.

In responding to items on the questionnaire, employees were directed to keep in mind their work unit. The work unit was defined as “an office, department, or service group and is made up of the people with whom you work on a day-to-day basis.” Because employees defined for themselves the scope of the work unit, respondents working side by side may have employed a more or less narrow notion of “work unit” in responding to the study.<sup>3</sup>

#### **Variables in the study**

Table 1 depicts operational definitions of variables used in the study, arranged in groups corresponding with the boxes in the conceptual framework.

**Table 1. Variable definitions.**

Variable Group	Range	Variable	# Items	Reliability
Employee Gender	1 = male 2 = female	Employee Gender		
Job Type		Engineers/Trades Health-Related Office Professional & Administrative Specialists/Technicians		
Division		Academic Affairs Business & Finance Development President's Office Research Student Affairs University/Government Relations		
Organizational Sector Gender	% of women employees in sector (1 to 100 % Female)	Job Gender Division Gender		
Organizational Culture	1 to 100 points, distributed among four cultural archetypes	Clan Adhocracy Hierarchy Market	4 14 14 15	.53 .58 .58 .71
Organizational Climate	1 = Strongly Disagree 6 = Strongly Agree (3.5 = midpoint)	Supportive unit climate Positive staff relations Support for professional development Supportive work processes	15 11 6 13	.95 .93 .88 .94

### Organizational sectors

The two organizational sectors important to this study are Job Type and Division. Job Types have been combined into five categories: Engineers/Trades/Service/Maintenance [Engineers/Trades], Health-related, Office, Professional and Administrative, and Specialists/Technicians. The university's Divisions are Academic Affairs, Business and Finance, Student Affairs, President's Office, Research, and University/Government Relations [University Relations]. These categories are consistent with those used by the university in other internal reports.

### Organizational sector gender

Organizational sector gender refers to the representation of women within a Job Type or Division. In his 1991 study of equity in academic rank and salary, Smart used the percentage of men in an academic discipline to represent "male domination of the field" (p. 516). In this study,

women composed nearly two-thirds of the noninstructional work force. Using an approach similar to Smart's, we created a new variable for each Job Type, using the percentage of women in that Job Type to assign the Job Gender. The Job Gender of the professional and administrative Job Type, for example, is reported as .651, because that group is made up of 65.1% women. Likewise, we created a new variable for each Division, using the percentage of women to represent Division Gender.

### Culture and climate

*Culture and climate.* In an earlier analysis of survey data, factor analysis was used to reduce 190 survey items to a more manageable set of 27 indices (*Culture and Climate*, 1994). For this study of organizational gender, we selected four of the indices representing organizational culture and four indices representing elements of workplace climate. The number of items included in each index and the reliability statistics are reported in table 2.

The four organizational culture indices chosen for this study are Clan, Adhocracy, Hierarchy, and Market. The survey included 16 items that presented four scenarios, where each scenario was descriptive of one of the four cultural models. Respondents were asked to assign 100 points among the four scenarios, according to their perceptions of the similarity of each scenario to the employee's work unit. All points could be assigned to a single scenario, or the points could be distributed among the four scenarios. The four indices represent cultural models based upon Cameron and Ettington's four archetypes.

We also selected four climate indices: Supportive Unit Climate, Staff Relations, Professional Development, and Supportive Work Processes. *Supportive Unit Climate* includes 15 survey items that describe employee feelings about the general atmosphere of the workplace, including relationships with supervisors and coworkers. Elements of a supportive community, such as trust, cooperation, teamwork, and enjoyment are included in this index. *Staff Relations* examines the relationships among unit employees, specifically addressing issues of fairness, dignity, and respect for one another. Seeking multiple points of view and staff participation in decision-making are also components of this 11-item index. *Professional Development* incorporates 6 survey items that focus on employee opportunities for training and development, and also on the system of rewarding employees for achievement of quality improvement goals. *Supportive Work Processes* (13 items) addresses the effectiveness of work processes,

implementation of improvements to those processes, and elimination of obstacles that might hinder improvement. This variable differs from the others in that it considers perceptions of the work itself.

These four climate indices were chosen because they appeared to represent employee perceptions of different aspects of the work environment. Each of the survey items incorporated in these indices had a range of responses from 1 to 6, where 1 represents a response of “strongly disagree” and 6 represents a response of “strongly agree.” A “neutral” response option was not available, making 3.5 the midpoint of the response range.

### ***Analysis***

Analyses were performed in four phases, guided by the four research questions. (1) To verify the existence of gender-dominated organizational sectors, we examined frequency distributions for each Job Type and Division. Using chi-square tests, we determined whether a significant difference appeared in the gender distribution of these organizational sectors, when compared with an even distribution of men and women.

(2) In order to learn how employee gender is related to perceptions of organizational work culture, we employed one-way analysis of variance (ANOVA) to determine whether male and female employees perceive culture differently. In addition, we used ANOVA to identify significant differences in employee perceptions according to organizational sectors (Job Types and Divisions). Next, regression analyses estimated the effect of employee gender and organizational sector gender upon employee perceptions of institutional culture.

(3) Following this exploration of perceptions of work culture, we used ANOVA to identify differences in employee perceptions of work climate, according to employee gender and organizational sectors. (4) Finally, we conducted additional regression analyses to estimate the influence of employee gender, organizational sector gender, and institutional culture upon perceptions of our four elements of climate. In these regression analyses, work culture was employed first as a dependent variable (phase 2) and then as an independent variable (phase 4). This is consistent with Cameron and Ettington’s finding that in quantitative organizational studies, culture has been treated as a dependent variable in order to measure or validate its dimensions, and as an independent variable in order to find relationships between culture and other variables in the study (1988, p. 368).

## Phase 1: Evidence of Gender Segregation

Although frequency distributions appeared to validate the gendered nature of Job Types and Divisions, chi-square tests demonstrated that the distribution of employees by gender was significantly different from the even distribution (50% men, 50% women) that might be expected from the general population. Not only did each Job Type exhibit a distinctive distribution of men and women, but each Division of the institution also featured clear gender dominance by men or women.

This university appears to model the feminist description of a gendered organization, as women are segregated into particular Job Types and Divisions. For each organizational sector, Table 2 shows the number of employees and the percentage of women, showing that women dominate all Job Types except Engineers/Trades and Specialists/Technicians, and all Divisions except Business & Finance. It is interesting to note that men occupy all of the vice presidential positions, except for Student Affairs. The clear domination of women among Divisions which are supervised by men appears to confirm the notion of hierarchical segregation, described by Tijdens (1994) as the uneven distribution of women across levels of the organization. Acker described the “production of gender divisions” as one of the fundamental processes of gendered organizations: “Ordinary organizational practices produce the gender patterning of jobs, wages, and hierarchies, power, and subordination” (1996, p. 465).

**Table 2. Representation of women, by organizational sector.**

Organizational Sector	N	% Women
<b>Job Type</b>		
Office	1,200	94.8***
Health-Related	141	88.7***
Professional and Administrative	2,376	65.1***
Specialists/Technicians	184	33.7***
Engineers/Trades	780	26.0***
Total, by Job Type	4,681	65.6
<b>Division</b>		
Development	43	81.4***
Academic Affairs	2,564	77.1***
Research	282	73.4***
University Relations	51	68.6**
Student Affairs	457	66.7***
President's Office	80	61.3*
Business & Finance	1,213	38.7***
Total, by Division	4,690	65.6

\* Chi-square significant at  $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## Phase 2: Differences in Perceptions of Work Culture

A comparison of means using one-way analysis of variance (ANOVA) identified significant differences in perceptions of organizational culture by Employee Gender, Job Gender, and Division Gender (see table 4). For each organizational sector, (W)omen or (M)en indicates dominant gender group, and Job Types and Divisions are arranged in the table according to the percentage of women in each sector, from highest to lowest. Recall that the four culture models are actually indices representing employee perceptions that a particular model -- Adhocracy, Clan, Hierarchy, or Market -- is similar to the employee's work unit.

**Table 3. Differences in perceptions of work culture: One-way ANOVA by Employee Gender, Job Type, and Division.**

	Adhocracy	Clan	Hierarchy	Market
<b>Employee Gender</b>				
Female	17.09	25.22	36.54	20.90
Male	20.10	23.68	35.08	20.90
F	39.12***	7.15**	4.12*	.00
<b>Job Type</b>				
Office (W)	15.48	25.46	38.19	20.66
Health (W)	15.33	25.99	40.10	18.49
Professional & Administrative (W)	19.38	24.86	34.80	20.76
Specialists/Technicians (M)	17.95	21.44	38.46	21.87
Engineers/Trades (M)	18.17	23.19	35.69	22.43
F	13.66***	2.96*	5.90***	1.33
<b>Division</b>				
Development (W)	16.21	27.83	32.86	22.95
Academic Affairs (W)	18.21	25.21	35.03	21.38
Research (W)	19.24	22.94	36.31	21.15
University Relations (W)	17.23	20.79	39.60	22.38
Student Affairs (W)	18.91	27.19	37.82	15.91
President's Office (W)	18.35	26.59	28.33	25.96
Business & Finance (M)	17.27	22.89	38.27	21.19
F	1.12	4.51***	4.64***	4.79***

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Employees are most likely to describe their work culture as hierarchical, overall, despite significant differences by Job Type and by Division in employee perceptions. By Employee Gender and Job Type, the greatest differences appeared in perceptions of Adhocracy, but no significant difference appeared in perceptions of Market by gender. By Division, in contrast, differences were not significant in perceptions of Adhocracy, while strong, significant differences emerged for the three remaining culture models.

Superficially, it appears that employees in Job Types dominated by women are more likely than others to view their work culture as more like a Clan, emphasizing relationships, shared values, and loyalty to the group. We might interpret this to mean that those in a Job Type dominated by women may be less comfortable with the entrepreneurial nature of Adhocracy, as it would seem to oppose the feminine characteristics of Clan culture, which is based upon family or team-centered values. By Division, however, two sectors dominated by women (University

Relations and Research) deviate from the pattern suggested by Job Types. These patterns of difference are interesting but difficult to interpret, perhaps raising more questions than they answer.

Hierarchical regression analyses were used to better explicate the relationship between gender and perceptions of organizational culture. Employee Gender, Job Gender, and Division Gender were entered as independent variables in the regression equation so that the influence of various gender structures might be identified.

Table 5 presents the results of four separate regression analyses, where each of the four models of culture was used as a dependent variable. While Employee Gender predicts only Adhocracy culture, Job Gender and Division Gender each contribute significantly to three of the four culture models. The results do not present a clearly identifiable pattern of gender influence, but the significance levels of the predictors suggest that further exploration of the influence of gender upon perceptions of culture is warranted.

**Table 4. Regression analysis: Influence of gender on perceptions of culture.**

Independent Variable	Standardized Coefficients ( $\beta$ )			
	Adhocracy	Clan	Hierarchy	Market
Gender	-.104***	.020	.036	.017
Job Gender	-.054**	.029	.059**	-.045*
Division Gender	.083***	.042*	-.094***	.008
Adjusted R <sup>2</sup>	.016	.004	.009	.001

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

### Phase 3: Differences in Perceptions of Climate

Survey respondents generally rated their work environment favorably. Table 6 reports means and one-way analysis of variance by Employee Gender, Job Type, and Division for Supportive Unit Climate, Staff Relations, Professional Development, and Work Processes. (W)omen or (M)en again indicates the dominant gender group. Although women gave visibly higher ratings to each of these four variables, only in the case of Professional Development was that difference significant. Men may perceive that they have fewer professional development opportunities or that their work is not recognized by those responsible for the reward structure; or men may have the very same opportunities but not perceive them to be appropriate or adequate. By Job Type and Division, a statistically strong difference appeared for each of the four climate

variables. Clearly, workers in different work sectors perceive their work climate differently. The influence of gender structures in these differences remains unclear, however.

**Table 5. Differences in perceptions of work climate: One-way ANOVA by Employee Gender, Job Type, and Division.**

	Supportive Unit Climate	Staff Relations	Professional Development	Work Processes
<b>Employee Gender</b>				
Male	3.879	3.733	3.690	3.611
Female	3.926	3.793	3.988	3.657
F	1.493	2.341	64.455***	1.537
<b>Job Type</b>				
Office (W)	3.89	3.75	3.99	3.67
Health-Related (W)	4.05	3.94	4.07	3.70
Professional & Administrative (W)	4.05	3.93	4.02	3.70
Specialists/Technicians (M)	3.56	3.42	3.48	3.46
Engineers/Trades (M)	3.57	3.37	3.35	3.47
F	27.37***	34.04***	56.09***	6.82***
<b>Division</b>				
Development (W)	4.05	3.74	3.89	3.63
Academic Affairs (W)	3.96	3.83	3.96	3.67
Research (W)	4.20	3.83	4.10	3.83
University Relations (W)	3.54	3.58	3.56	3.42
Student Affairs (W)	3.92	3.79	4.00	3.70
President's Office (W)	3.97	3.74	3.92	3.82
Business & Finance (M)	3.75	3.62	3.65	3.53
F	7.66***	5.67***	11.80***	3.69***

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

#### Phase 4: The Influence of Gender Structures and Perceptions of Culture upon Climate

Institutional culture may be viewed as an influence upon climate, as depicted in the conceptual model. The relative influence of gender structures and perceptions of culture on differences in perceptions of work climate is the question addressed by the hierarchical regression analysis, shown in table 7.

**Table 6. Regression analysis: Influence of gender and culture on perceptions of climate.**

	Independent Variable	Standardized Coefficients ( $\beta$ )			
		Supportive Unit Climate	Staff Relations	Professional Development	Supportive Work Processes
Model 1	Gender	-.045*	-.034	.052**	-.014
	Job Gender	.072***	.083***	.110***	.057**
	Division Gender	.071***	.057**	.052**	.042*
	Adjusted R <sup>2</sup>	.010	.010	.028	.005
Model 2	Gender	-.024	.014	.069***	.006
	Job Gender	.066***	.074***	.110***	.050**
	Division Gender	.035*	.025	.024	.011
	Adhocracy	.195***	.212***	.147**	.335***
	Clan	.395***	.379***	.233***	.492***
	Hierarchy	-.025	-.007	-.084	.171*
	Market	-.126	-.132*	-.133	.091
	Adjusted R <sup>2</sup>	.299	.289	.189	.225

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Hierarchical regression analysis allows researchers to determine the order of entry of variables into the regression equation. This is an appropriate choice for this study because it provides information after each block of variables have been entered. In table 7, Model 1 depicts the regression equation after entry of the three gender variables. In this model, Job Gender is a strong, significant predictor for each of the climate indices, and Division Gender is also a significant (though less strong) predictor for each. Employee Gender is a negative predictor of supportive unit climate and a positive predictor of Professional Development.

From this analysis, gender structures appear to influence employee perceptions of their work climate. The low beta values and adjusted R<sup>2</sup> indicate that other factors play a greater role in understanding these perceptions, however.

Model 2 shows the regression results after the culture variables have been added to the equation. Employee Gender is a stronger predictor of Professional Development than in Model 1, indicating that addition of the culture variables has changed the relative influence of other variables between the two models. Note that Division Gender is no longer a significant predictor of climate, but that Job Gender continues to be a significant predictor of Positive Staff Relations, Professional Development and Supportive Work Processes.

Model 2 also demonstrates that perceptions of organizational culture are important predictors of perceptions of organizational climate. The Adhocracy and Clan culture models

were strong predictors of Positive Staff Relations, Professional Development, and Supportive Work Processes. The model explains the greatest variance for Supportive Unit Climate, followed closely by Positive Staff Relations, and then by Supportive Work Processes and Professional Development.

### Limitations

Because the survey questionnaire asked employees to respond with their *work unit* in mind, the Division Gender variable created for this study is unlikely to represent the same construct. As defined in the questionnaire instructions, the work unit is narrow in scope, including the people and processes encountered daily. The Divisions described in this study include broad university divisions, and the number of respondents in each ranges from just 43 in Development to more than 2500 in Academic Affairs. While the survey asked questions about unit leadership, the gender of the unit leader is not reported, prohibiting further exploration of hierarchical segregation within institutional divisions. For future study, specific information about the gender of the unit leader and the gender mix within the actual work unit would be informative.

### **Discussion**

The goal of this study was to apply feminist organizational theory to a particular university, and to explore the effects of gender structures on perceptions of organizational culture and climate. Descriptive statistics revealed the distinctive gender distribution among job types at this Midwestern university, supporting Tijdens' (1994) conception of occupational segregation. Gender dominance among the university's divisions demonstrated gender structure in a vertical form, as well. Male leadership of all but one of the divisions in the study, including five of the six divisions dominated by women, is consistent with Tijdens' conception of hierarchical segregation.

Although the four cultural archetypes utilized in this study did not explicitly incorporate gender, the hierarchical and Market models appear to describe what feminist scholars have described as masculine values. Models embracing more feminine values -- Adhocracy and Clan -- were significant predictors of four aspects of workplace climate. Human resource managers, institutional leaders, and training officers should consider these results as they plan and implement employee recruitment efforts and leadership development programs.

The influence of gender structures is not decisive; it appears that an employee's job type and its gender structure may be related to perceptions of the immediate work environment (climate), but the employee's organizational division and its related gender structure is more closely related to perceptions of the broader organizational environment (culture).

This university is one of many with a highly publicized plan for improving the status of women on campus. While even a casual observer would immediately recognize the sex segregation confirmed in this study, institutional efforts toward gender equity tend to focus on students, faculty, and upper administration. The many noninstructional employees appear overlooked in gender equity efforts. Certainly this institution is not alone in this dual role of visibly directing university resources toward gender desegregation among faculty, while reproducing the existing gender structures among noninstructional staff. This exploratory study points to the need to further explore the complex web of organizational and external influences that sustain gender structures and potentially inhibit workplace satisfaction, productivity, and professional advancement of noninstructional staff. As key contributors to the internal research agenda of the university, institutional researchers can place noninstructional employees on that agenda, raising the question of the influence of gender structures upon employee perceptions of their work environment.

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<sup>1</sup> One notable strand of the literature on gender equity in higher education has focused on the clientele, addressing student enrollment (e.g., Carter & Wilson, 1996; Smith, 1985; Moore & Amey, 1988). That literature will not be reviewed here, as this study is concerned with employees' perceptions and not students'.

<sup>2</sup> Medical center employees were not included in this study, but were involved in a separate assessment.

<sup>3</sup> A complete discussion of survey development is presented in *Culture and Climate for Quality* (Work Environment Research Group, 1994).



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